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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,849	10/17/2003	James M. Quigley	84,605	2816

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OFFICE OF COUNSEL, CODE 004
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EXAMINER

LUKS, JEREMY AUSTIN

ART UNIT PAPER NUMBER

2837

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

10/693,849

Applicant(s)

QUIGLEY, JAMES M.

Examiner

Jeremy Luks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2006.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 5-11 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1 and 5-11 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 6 is objected to under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant does not disclose multiple rubber layers of differing thicknesses.
2. Claim 6 recites the limitation "each rubber layer" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 5-11 rejected under 35 U.S.C. 103(a) as being unpatentable over Faulhaber (2001/0009207) in view of Bychinsky (3,966,015).

With respect to Claim 1, 7, Faulhaber teaches an outer casing (Figure 1, #11) enclosing a flow chamber (20) between opposite axial ends thereof through which the fluid is conducted; an inner cylindrical support (17) drum positioned within the outer casing (11) and surrounding the flow chamber; flexible means (15) positioned within the outer casing (11) and surrounding the cylindrical support drum (17) for exposure to the

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fluid within the flow chamber (20) through the hole (13) in the inner cylindrical support drum (17); and gas cavity means (Figure 1, #16) enclosed within the outer casing (11) through which the flexible means (15) is exposed to pressurized gas in opposition to said exposure to the fluid in the flow chamber (20) (Col. 2, Paragraph 0031). Faulhaber fails to teach a plurality of axial sections positioned within the outer casing and surrounding the inner cylindrical support drum, wherein: at least a portion of each axial section is exposed to fluid in the flow chamber through an associated hole in the inner cylindrical support drum; each axial section is separated from an adjacent axial section by a connector plate; each axial section has a length and radial dimension that differs from a length and radial dimension of each of the other axial sections. Bychinsky teaches a plurality of axial sections (Figure 1, #46, 74, 94, 114, 130) positioned within an outer casing and surrounding the inner cylindrical support drum when combined with Faulhaber, wherein: at least a portion of each axial section (46, 74, 94, 114, 130) is exposed to fluid in the flow chamber through an associated hole in the inner cylindrical support drum when combined with Faulhaber; each axial section is separated from an adjacent axial section by a connector plate (Figure 2, #48); each axial section has a length and radial dimension that differs from a length and radial dimension of each of the other axial sections (See Figure 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Faulhaber with the apparatus of Bychinsky in order to attenuate a plurality of frequency bands within the muffler.

With respect to Claim 5, Faulhaber teaches a cylindrical rubber layer (Figure 1, #15); wherein said hole in the inner cylindrical support drum (17) comprises slanted holes (13) on which the rubber layer (15) is positioned under said exposure to the fluid within the flow chamber (20) through the slanted holes (13).

With respect to Claim 6, Faulhaber and Bychinsky are relied upon for the reasons and disclosures set forth above. Faulhaber and Bychinsky fail to teach each rubber layer having a thickness that differs from a thickness of each of the other rubber layers. It would have been an obvious matter of design choice to provide each rubber layer with a thickness that differs from a thickness of each of the other rubber layers to attenuate multiple frequency bands, since such modification would have involved a mere change in size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955)

With respect to Claim 8, the combination of Faulhaber and Bychinsky will give each gas cavity (Faulhaber, Figure 1, #16) means a volume that differs from a volume of each of the other gas cavity means (16) due to the differing dimensions of the axial section (Bychinsky, Figure 1, #46, 74, 94, 114, 130) housed within the gas cavities (Faulhaber, Figure 1, #16). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Faulhaber with the apparatus of Bychinsky in order to attenuate a plurality of frequency bands within the muffler.

With respect to Claim 9, Faulhaber teaches wherein each gas cavity means (Figure 1, #16) includes a selectively controlled valve means for equalizing a pressure

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in the gas cavity means (16) with a pressure of the fluid in the flow chamber (Page 2, paragraph [0031]).

With respect to Claims 10 and 11, Faulhaber is relied upon for the reasons and disclosures set forth above. Faulhaber further teaches a portion of a flexible means is exposed to pressurized gas through a hole in the outer cylindrical drum. Faulhaber fails to teach wherein each axial section further comprises an outer cylindrical support drum comprising a hole and located opposite the inner components. Bychinsky teaches wherein each axial section further comprises an outer cylindrical support drum (Figure 1, #40) comprising a hole (20) and located opposite the inner components. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Faulhaber with the apparatus of Bychinsky in order to attenuate a plurality of frequency bands within the muffler.

Response to Arguments

4. Applicant's arguments with respect to claim 1 and 5-11 have been considered but are moot in view of the new ground(s) of rejection. The Examiner feels that the obvious combination of the references cited herein teach all of the limitations as claimed by Applicant.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

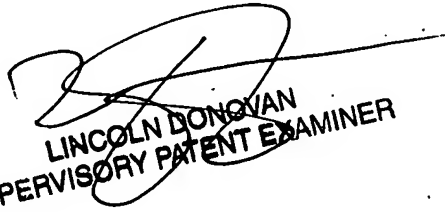
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Luks whose telephone number is (571) 272-2707. The examiner can normally be reached on Monday-Thursday 8:30-6:00, and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeremy Luks
Patent Examiner
Art Unit 2837



LINCOLN DONOVAN
SUPERVISORY PATENT EXAMINER